

February Meetings

Dates & Times

Matinee, 2:30 p.m., Wednesday
February 11, 1981

Evenings, 8:00 p.m., Wednesday
and Thursday, February 11 and 12, 1981

Place

May Treat Morrison Auditorium

Speaker

Ron Cronin

Subject

Mt. St. Helens: The Force of Change

Today everyone recognizes the name of Mt. St. Helens, but some may not realize that the recent dramatic events are notorious only because they occurred in the presence of modern communications. The geological history of the entire Pacific Northwest has been one of uplift and volcanic eruption and the Mt. St. Helens eruption was merely one of many thousands in the life span of the Cascade Range. The fiery antics of this particular volcano have provided us with a unique opportunity to observe first-hand just how the land of that region was created.

One man who captured the changes of Mt. St. Helens on film is nature photographer Ron Cronin, one of the Academy's most popular guest speakers in recent years. He began photographing from the day of the first eruption, often camping nearby to record the historic event. His slide lecture on the ecological and geological changes of the mountain and the surrounding area includes collected photos of the landscapes of Mt. St. Helens as it now appears from various viewpoints with particular emphasis on the regeneration of life in the devastated ash-affected area and the constantly changing mudflows. Cronin points out that even if the volcanic activity stops tomorrow, the mudflows will continue to be active for at least ten years; they are a building function as well as a destructive force.

"Being so much a part of the Mt. St. Helens eruptions has been a compelling, almost magical event," writes Cronin. He will be sharing his dramatic photographs and experiences with members of the Academy this month and as usual your membership card will admit you through the main entrance at Cowell Hall for the evening presentation and through Cowell Hall and

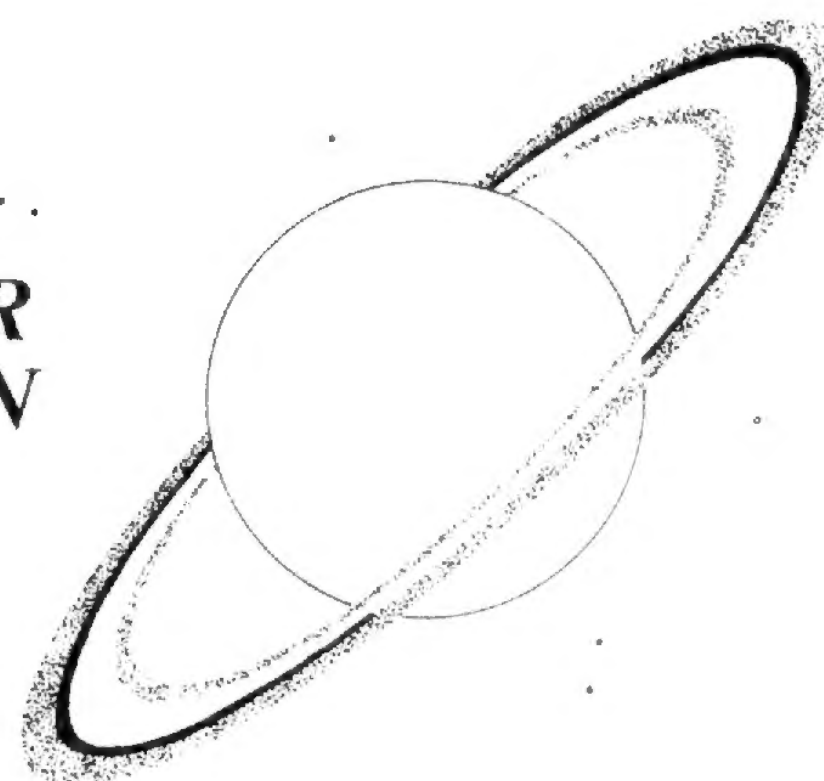
Wattis Hall entrances for the matinee. Please be prepared to show your card once again at the auditorium door for the matinee presentation.

Monthly Members' Meetings Preview

Dr. John Monteverde from the Department of Geosciences at San Francisco State University will speak at the March 11 and 12 members' meetings on **Weather Prediction: How Do We Do It?**

Special Lecture

THE VOYAGER EXPLORATION OF SATURN: The Planets, Its Rings, and Its Satellites



Speaker:

Andrew Fraknoi
Wednesday, February 18,
8:00 p.m.

May Treat Morrison Auditorium

A close encounter of the best kind occurred in November, 1980 when the Voyager I spacecraft met with the ringed planet Saturn and its satellites. The spacecraft returned thousands of photographs and a wealth of scientific data revealing a new system in some ways unlike anything we have seen before.

In this non-technical slide/lecture, Andrew Fraknoi will lead a guided tour of Saturn and its environment and give an overview of the past and future of the Voyager program.

Andrew Fraknoi is also one of the featured speakers in our symposium **Science Fiction or Fact?** Please see this **Newsletter** for details.

This special program is presented free of charge to members of the Academy and to members of the Astronomical Society of the Pacific. Charge is \$1.00 per person for the general public.

Special Exhibits

Continuing exhibits include **Exploring the Deep Frontier: The Adventure of Man in the Sea** where the history of diving is explored from the earliest attempts to modern day techniques. Through May 17 in Lovell White Hall and Hohfeld Gallery II. **Feather Arts: Beauty, Wealth, and Spirit from Five Continents**, a visual feast of featherworks showing the creativity which people from many cultures have used in making feather objects for their daily use as well as for their rituals and dances. Through April 30 in the Patricia Price Peterson and Atholl McBean Galleries. **Mirounga: The Elephant Seals of Ano Nuevo**, color and black and white photos by Kenneth Parker and Eugene Fisher. Through April in Hohfeld Gallery I. **Afghanistan**, color photos of this remote and rugged country, by Dr. Edward S. Ross. Cowell Hall through February. A new exhibit of color photographs entitled **Reflections on Alaska** will open February 5 in Lower Cowell Hall Gallery. These photos which depict the wild life and terrain of Alaska are the work of three photographers, Rick Brugger, Libby Mills and Alan Seegert.

Morrison Planetarium

The dean of science fiction authors, Isaac Asimov, introduces **The Last Question**, the latest planetarium show based on his short story of the same name. What will happen to our descendants when every star in the universe has died and they are left with the ultimate, cosmic energy crisis? Discover the answer to **The Last Question** for yourself at this unique show which is narrated by Leonard Nimoy.

Showtimes for **The Last Question** are Monday through Friday at 2:00 p.m., Wednesday and Thursday at 7:30 p.m., Saturday and Sunday at 12:30, 2:00 and 3:30 p.m.

Exploring the Skies of the Season, a look at the current night sky over San Francisco will continue to be shown on weekends at 11:00 a.m.

Please use your planetarium passes for free admission.

Light Shows

We are happy to announce that "Eye See the Light, Inc." is once again offering a discount coupon to **Light Shows** to all Academy members. This coupon may be used for two people for any performance of the original **Lights Fantastic** or the all-new **Rock Fantasy** through March 31, 1981 at the low price of \$1.50 (\$1.75 on Friday and Saturday). To avoid disappointment if the show should be sold out, reservations should be made by calling the planetarium office at 221-5100 ext. 269, at least one day in advance of the performance you would like to see. Bring the coupon below to the cashier's desk in Cowell Hall about one-half hour before showtime and you will be charged the members' special discounted rate.

Lights Fantastic showtimes:

Friday at 7:30 and 9:00 p.m.
Saturday at 5:00, 7:30 and 9:00 p.m.
Sunday at 5:00 and 7:30 p.m.

Rock Fantasy showtimes:

Thursday and Sunday at 9:00 p.m.
Friday and Saturday at 10:30 p.m.

Regular admission (without discount coupon) is \$3.50 for adults for all performances and \$1.50 for seniors (65 and over) and children under 10. (\$1.75) on Friday and Saturday). Tickets are available in advance through BASS outlets or at the Academy box-office one-half hour before showtime. For Light Show information, call 387-6300 or 6301. For BASS outlets call 835-3849.

Please Note: This is **not** a regular planetarium show, **nor** are your planetarium passes usable for this attraction. **Members see valuable discount coupon below to Light Shows.**

"LIGHT SHOWS"

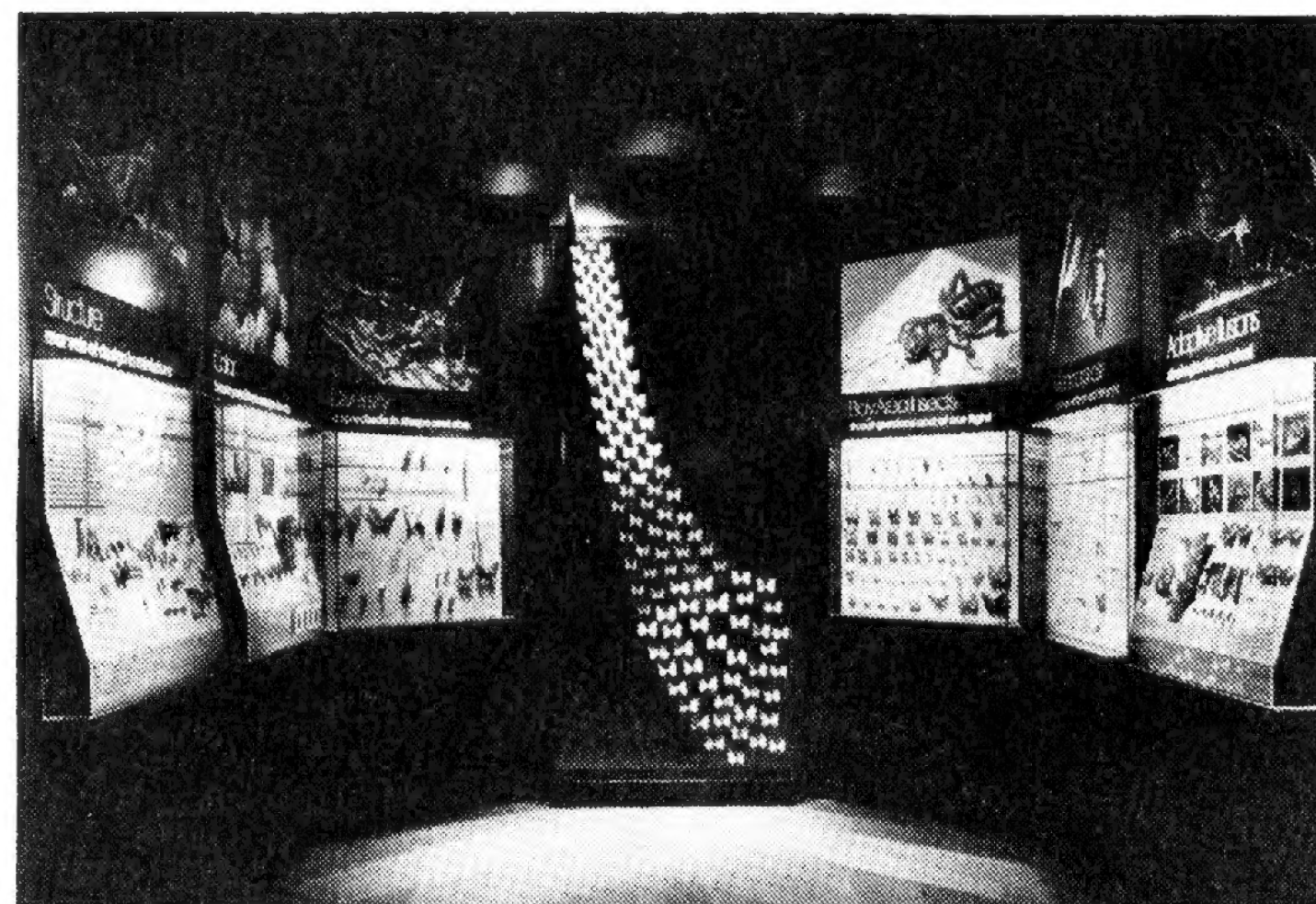
DISCOUNT COUPON

GOOD FOR ANY PERFORMANCE
THROUGH MARCH, 1981

Admits two Academy Members at
discounted ticket price of
\$1.50, or \$1.75 each for Friday
and Saturday Performances

Bring this coupon with you and redeem
it at the cashier's desk in Cowell Hall
one-half hour before showtime.

Inside the Academy



It is ironic that the smallest exhibit space at the California Academy of Sciences unfolds the story of the largest group of animals in the world — the insects, but the size of the room is forgotten once you enter this important new addition. In a jewelbox setting just off Cowell Hall you are greeted by a rainbow of butterflies stretching from floor to ceiling and display cases of insects from around the world that show the endless variety of insect adaptations for survival. Some of the sights you will see are brown winged deadleafs which cling to trees mimicking winter foliage and flies that look like bees. There is a large butterfly with false eye spots to fool predators into thinking it is the head of an owl instead of a tasty morsel, and a bright green Moving Leaf that looks perfectly at home on the branch of a shrub or tree. Then there are the brilliantly colored metallic green beetles, used to make jewelry in some parts of the world, and butterflies with patterns so dazzling they startle the imagination.

The subjects so beautifully illustrated with specimens and audio-visual programs in this latest exhibit hall at the Academy include Structure, Color, Diversity, Bay Area Species, Metamorphosis, Adaptive Illusions.

The Entomology Room will be open from 6 to 8 p.m. before the February 11 and 12 members' meetings.

The Nature Company will hold its annual sale during the month of February. Reductions will include 10% off all merchandise (except limited edition art), and up to 50% on other selected items. Take this opportunity to stock up on your favorite naturalist's items or think ahead to Christmas 1981!

Science Fiction

A Look at Science and

7 — 10 p.m. Wednesday evenings

Speakers: Andrew F

Join us for six exciting evenings of fact and fantasy as two scientists (and longtime science fiction devotees) compare the predictions of science fiction to the theories and discoveries of modern science.

Each evening will feature a non-technical slide/lecture on a scientific subject of current interest and a full-length science fiction film. The program is designed for the general public and no background in science or science fiction is necessary. (Program and registration form follow).

PROGRAM

March 18

Lecture: **An Illustrated History of the Martians**

Film: **War of the Worlds**

This discussion will feature a slide survey of the variety of Martians we have invented, a view of the "Martians" as an endangered species and some of the latest results in our search for life on Mars, followed by George Pal's chilling version of H.G. Wells' invasion of Earth by Martians. The enemy attacks in ingeniously alarming swan-shaped machines.

March 25

Lecture: **Time Machines: The Possible and the Impossible**

Film: **Time Machine**

H.G. Wells' classic tale of exploration into the fourth dimension will follow a discussion of one of man's oldest dreams — time travel. Now scientists have discovered two ways to travel more quickly through time, one of which involves the bizarre cosmic objects called black holes!

April 1

Lecture: **Giant Monsters and Shrinking People**

Film: **Them**

Two recurrent science fiction themes are the ordinary animal which becomes a giant and the person who shrinks to insect size. This lecture on whether nature permits either of these drastic changes will be followed by a classic in horror-fantasy which shows giant ants on the rampage and culminates in a final battle between flame-thrower and ants in the sewers of Los Angeles.

ion or Fact?

Science Fiction Film.

March 18, 25 April 1, 15, 22, 29 1981

Fraknoi Alan Friedman

April 15

Lecture: **Life Among the Stars: Are We Alone?**

Film: **The Andromeda Strain**

Recent evidence from our own solar system and beyond has made astronomers more optimistic about the possibility of life elsewhere. After looking at the new information about the prospects for extraterrestrial life and possible ways to contact other civilizations, we will show **The Andromeda Strain** which documents the havoc created when a lethal extraterrestrial microorganism comes to earth aboard a plummeting space probe capsule.

April 22

Lecture: **The Image of the Scientist in Popular Culture**

Film: **The Day the Earth Stood Still**

The image of the absent-minded professor or the mad doctor still dominates the popular view of scientists. We will examine the origins of these stereotypes and show **The Day the Earth Stood Still**, one of the more intelligent science fiction films ever made, about extraterrestrial life and earthbound politics.

April 29

Lecture: **Astronomy in the Dead of Night: The Origin of the Universe**

Film: **Dead of Night**

Beginning with an illustrated "grand tour" of the universe, the discussion will focus on our current theories and evidence about the creation and eventual fate of the cosmos, with particular emphasis on the "Big Bang." It seems that one of the most mind-boggling of these theories was partly inspired by an acclaimed British horror film, **Dead of Night**, which will conclude the program.

Andrew Fraknoi is the executive officer of the Astronomical Society of the Pacific and editor of its non-technical journal **Mercury**. He is an instructor of astronomy and physics at San Francisco State University and Canada College and is co-author of a nationally syndicated newspaper column on astronomy.

Alan Friedman is the Director of Astronomy and Physics Education at the Lawrence Hall of Science of the University of California, Berkeley. He is the current chairperson of the literature and science division of the Modern Language Association and has taught and lectured extensively on science and the humanities.

The science fiction show, **The Last Question** which is based on the short story of the same name by Isaac Asimov, can be seen in the Morrison Planetarium at the California Academy of Sciences through May 1. Call the planetarium at 752-8268 for times and admission.

Ticket Information and Registration Form:

Tickets are available for **Science Fiction or Fact?** with this registration form. Reservations will be accepted in order of receipt and unfortunately telephone reservations cannot be taken for this event. Tickets for individual lectures will be sold at the door on a space available basis for \$4.00 per person.

For further information please call the Education Office, (415) 221-5100.

TICKET ORDER FORM

Please mail this form with check, made payable to the CALIFORNIA ACADEMY OF SCIENCES, and a self-addressed envelope to:

SCIENCE FICTION OR FACT?
California Academy of Sciences
Golden Gate Park,
San Francisco, CA 94118

Price: \$20 for 6 lectures

Name _____

Address _____

Zip Code _____

Daytime Telephone # _____

Tickets @\$20 _____

Total Amount Enclosed _____

NO REFUNDS / NO EXCHANGES

Adult Education

Expand your horizons! Explore the world of nature as a participant in an Academy Adult Education Course. Three fascinating and informative courses begin this month. For details, check your "Activities Calendar" or call the Education/Travel Office at (415) 221-5100, ext. 211.

LIFE AT SEA: Fact and Folklore

February 3 - 14

3 Tuesdays, 7 - 9 p.m.

\$15

Sea chanties, sea terms, literature and legends. A look at the history of man and the sea.

ENDANGERED SPECIES:

Is Extinction Inevitable?

February 5 - March 19

6 Thursdays, 7 - 9 p.m.

\$30

Be informed! Join staff members of the Department of Fish and Wildlife and the Academy for an objective study of a subject surrounded by controversy.

BAJA CALIFORNIA: A One-Day Symposium

Saturday, February 21

10 a.m. - 4:15 p.m.

\$5

Join Academy scientists as we meet Blue-footed Boobies, Boojums, Brown Pelicans and more on our one-day exploration of the Sea of Cortez and the starkly beautiful Baja California Peninsula.

Education and Travel

Natural History of the California Coast

April 24 - 28

Dr. Stan Williams will lead Academy members southward by bus to Santa Barbara. Highlights will include stops in Point Lobos, Big Sur and Hearst Castle, the Santa Barbara Botanical Gardens and Natural History Museum and a cruise to the Channel Islands. Cost to be announced. For information, please call Gulliver's Travels at (415) 346-4400.

Pueblo Country I

June 5 - 14

The Indians and scenic beauties of the Great Southwest are the focus of this tour led by Dr. Dorothy Washburn, Chairman of the Academy's Anthropology Department. From Albuquerque, members will tour such fascinating areas as Chaco Canyon, Aztec Ruins National Monument, Mesa Verde

National Monument, Taos and Santa Fe. Cost is \$1187, including air fare. For information, please call Gulliver's Travels at (415) 346-4400.

Alaska

June 6 - 21

Adventure and a wealth of wildlife await Academy members on our popular annual tour to Alaska led by Jacqueline Schonewald. A cruise to the Columbia Glacier, several days in Mt. McKinley National Park, a visit to the "Valley of Ten Thousand Smokes" and some time in Glacier Bay are but a few of the highlights of this tour. Cost is \$2201 for land and \$416 for air at current G.I.T. rates. For information, please call Siemer & Hand, Ltd. at (415) 788-7186.

The Galapagos Islands

July 15 - 29

Come aboard the **M.V. Santa Cruz** on our annual tour to those "living laboratories of evolution" . . . the Galapagos Islands with the guidance of Academy scientist Dr. Sylvia Earle. Lindblad Travel is offering a ten-percent discount on a limited number of cabins to Academy members. Costs range from \$1890 - \$3040 for land/cruise arrangements. Air fare is \$863. For information, please call the Academy Travel Office at (415) 221-5100.

Zambezi Safari

July 27 - August 15

Dr. Lawrence Swan will lead members to Zambia and Zimbabwe along the Zambezi for a fabulous safari adventure. Game drives, river trips and guided treks highlight our exploration of the Luangwa Valley, Kafue National Park, Victoria Falls and Salisbury, the capital city of Zimbabwe. An optional extension to Botswana's Okavango Delta and Chobe National Park is also available. Cost is \$2040 for land, \$1720 for air at current rates. Botswana extension is \$695 additional. For information, please call the Academy Travel Office at (415) 221-5100.

FIRST ANNOUNCEMENT

Classical World of the Aegean

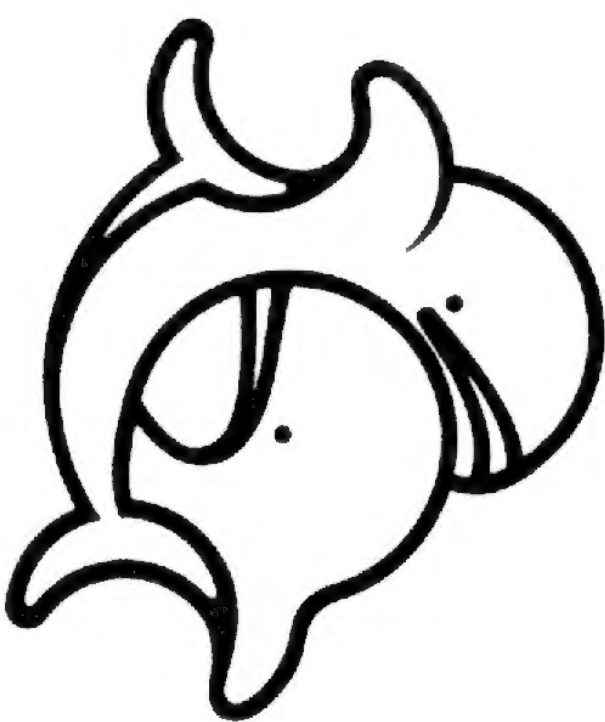
September 1-14

A cruise to Greece, the Greek Islands and Turkey. For information, please call the Academy Travel Office at (415) 221-5100.

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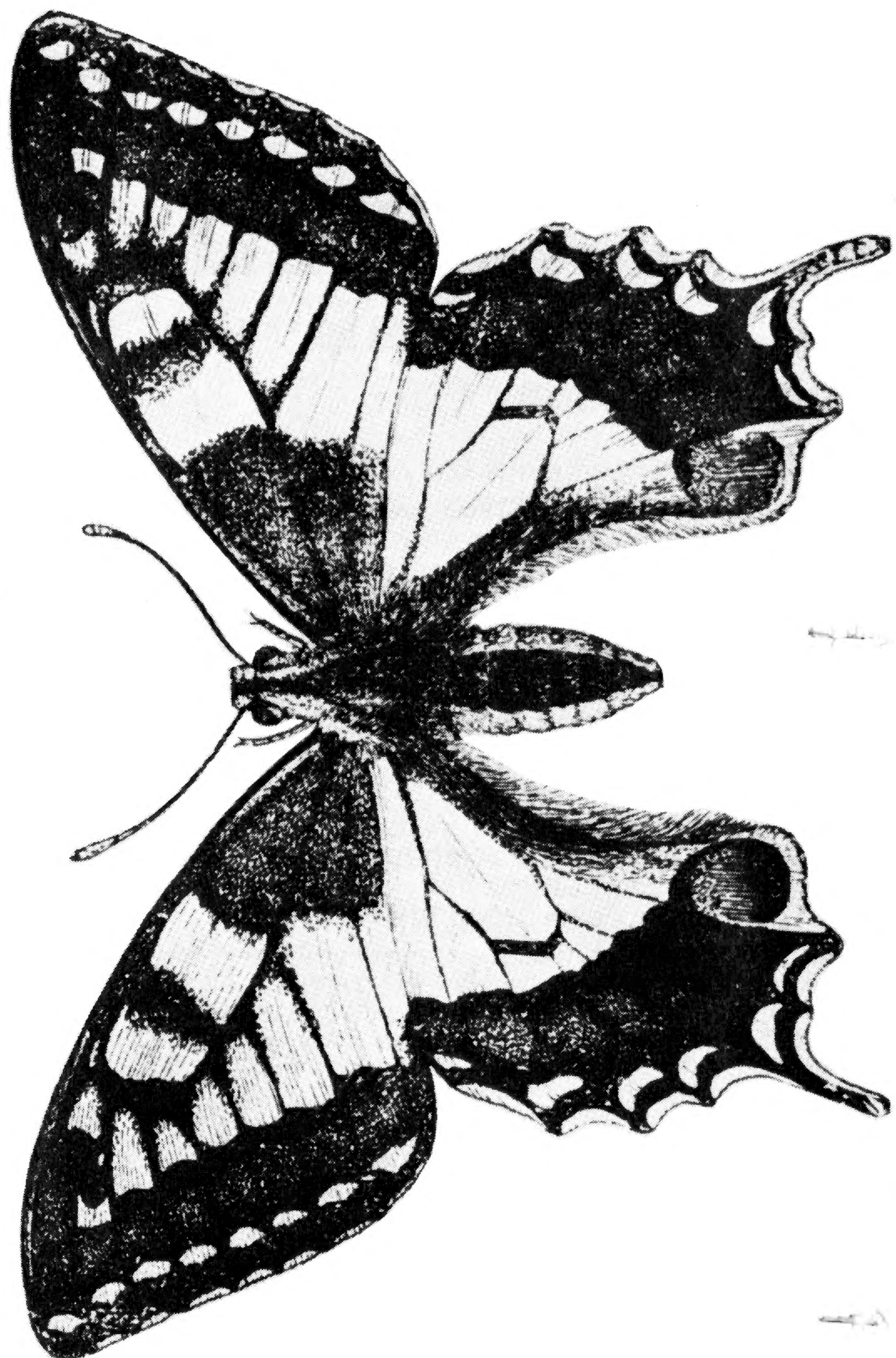
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